



Presidential Commission
for the Study of Bioethical Issues

TRANSCRIPT

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Meeting 22, Welcome and Opening Remarks; and Working Group Reports and
Consideration of the Intersection between Deliberation and Bioethics
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DR. GUTMANN: Good morning, everyone; it is great to see you here. And it is a good day, even though it is summer, to be inside. So welcome to our meeting. I am Amy Gutmann. I am president of the University of Pennsylvania, and I also have the privilege of being chair of the Presidential Commission for the Study of Bioethical Issues. Our vice chair, Jim Wagner, is unable to join us today, but he sends his regrets, and he will be following our deliberations and be well briefed. On both of our behalves, I welcome you to our twenty-second meeting, which is, for us, quite staggering. It seems the time has gone by very quickly.

Let me begin by noting the presence of our designated federal official, Bioethics Commission Executive Director Lisa M. Lee. Lisa, please stand up. Lisa makes this meeting official. So thank you for that, and for everything else you do for the Commission.

I would also like to ask the Bioethics Commission members to introduce themselves. Let's begin with Nelson.

DR. MICHAEL: I am Nelson Michael, I am a research physician at the Walter Reed Army Institute of Research.

DR. GUTMANN: He keeps us in line.

(Laughter.)

DR. ALLEN: Hi, I am Anita Allen. I am the vice provost for faculty at the University of Pennsylvania, as well as Professor of Law and Philosophy.

DR. KUCHERLAPATI: I am Raju Kucherlapati, I am a Professor of Genetics and Medicine at Harvard Medical School.

DR. GRADY: Hi, I am Christine Grady, I am the chair of the Department of Bioethics at the NIH Clinical Center.

DR. SULMASY: Dan Sulmasy, the University of Chicago Department of Medicine and Divinity School.

DR. ATKINSON: Hi. Barbara Atkinson, Planning Dean for the new medical school at the University of Nevada, Las Vegas.

DR. HAUSER: Steve Hauser, Chairman of the Department of Neurology at the University of California, San Francisco.

DR. GUTMANN: And we also have Nita Farahany on the phone, who is joining us from Duke. Nita, can you introduce yourself?

DR. FARAHANY: Yes, good morning. Nita Farahany, Professor of Law and Philosophy and Director of Duke Science and Society at Duke University.

DR. GUTMANN: Thank you. During this meeting we are going to continue our work on education and deliberation. We are going to be deliberating about deliberation, which is what -- we normally do deliberation, but today we will be deliberating about it, and also about bioethics education.

And before we begin, I want to take just a moment to explain how we take public comments. There are comment cards at -- there are at the registration desk, but also every staff member has them. We really welcome your questions or comments.

And, staff members, can you hold them up -- your cards?

Just ask a staff member for a card, write down your question. Lisa or Michelle or one of our staff members will pass them up to me, and time permitting -- and there usually is time -- we will take the questions. If we can't take your questions here, we get back to you after the meeting. But I really encourage people to write down questions.

To begin this morning, we are going to begin for about a half an hour to give our working group reports, our considerations about the intersection between deliberation and bioethics education, why deliberation is so important for education, and education is so essential to further deliberation.

And what I would like to do is frame our discussion with just some examples of deliberation and its impact in action, as we have experienced it on the Commission. Enough time has now passed to see some of our own deliberations, and the resulting recommendations that have directly implemented the results of those deliberations.

So, there are -- some people, some critics of deliberation -- I don't know where they are, but they are there. And we should pose the criticism ourselves, as a set question: Well, it is very good in theory, but does it have any effect in practice, especially in a time which is characterized by a lot of sound bite -- what's been called sound bite democracy?

But we have found, actually -- and the Commission is set up in a way that is conducive to this -- that many of our deliberations have actually found their way into practice at a time when people have been clamoring to see some things actually happen in the public realm. These haven't changed the global economy, nothing has, to my -- you know, that has been the result of deliberation. That is too much to expect. But they have made a significant difference.

So let me give some examples. I will begin with the most challenging report we had to do, by a long shot, and we were charged to do this report. And we called the report "*Safeguarding Children*." And in it we recommended, after considerable deliberation, hearing many different points of view within communities

and between communities -- so we heard directly contradictory points of view in the pediatric medical community, for example -- we deliberated.

It was, as all of our deliberations, public. We got a lot of public comment. And we recommended that research for pre-event pediatric medical countermeasures -- in other words; let me just put that simply -- we recommended that research for the safety of vaccines for an event that hadn't happened yet, like an anthrax attack, research on children proceed via progressive age de-escalation wherever possible.

And that -- we recommended that because the research that had been done on adults, which is always the first place research for these vaccines is done, couldn't tell us that doing research on children for these vaccines would be safe, would meet the safety standards. So we recommended that you begin with the oldest group after you look at the youngest group of adults, and see that that was safe, and you do progressive age de-escalation research.

In an effort to begin to implement our suggested research design, an anthrax vaccine absorbed -- AVA, it is called -- the Biomedical Advanced Research and Development Authority, and the Centers for Disease Control and Prevention, CDC, recently published a study reviewing existing data, and comparing the effects of AVA on two young adult age groups, which is precisely what we recommended. The study found that AVA safety and immunogenicity were similar among the two compared age groups -- that is, 18 to 20 year olds and 21 to 29 year olds -- had similar safety. And that set the stage, in turn, for informed age de-escalation with pediatric patients.

So, they have done precisely what we recommended, and that was not the pre-existing recommendation. And there has been really widespread affirmation that

this is the right way to do things. And so I think, in a report that we deliberated about -- and I would say, in common language, we agonized over -- publicly, we came out and we all felt good about where we came out.

We actually think it is a big step forward that the agencies in charge of this have taken our recommendations in moving it forward in an area that is second to none in being controversial in this country, which is vaccine research.

Second example -- I am just going to give a few examples -- incidental findings, our work there has also made a mark. So let me give you the backdrop to this.

In March 2013, the American College of Medical Genetics and Genomics, ACMG -- I have learned every three and four-letter combination that I thought I could keep in my head here -- the ACMG announced recommendations for disclosing incidental findings in clinically-indicated whole genome sequencing. And, after extensive debate over the right of patients to opt out of certain genetic analysis, ACMG concluded -- and I quote -- "that these findings be reported without seeking preferences from the patient and family, and without limitation due to the patient's age." So they reported against getting any kind of consent.

This conclusion stood in stark contrast to one of our recommendations in our report, and to -- which we called "*Anticipate and Communicate*." Our report came out later. And after our report's publication, ACMG updated their original recommendations. They actually changed, modified in an important way. And I quote -- this is what they now state and recommend, and -- which is -- and they have a very good record of their recommendations being put into practice: "Patients should be informed during the consent process that, if desired, they may opt out of such analysis.

However, they should also be made aware at that time of the ramifications of doing so," completely consistent with our recommendations.

In addition, ACMG followed the Bioethics Commission in adopting the term "secondary findings," specifically attributing that decision to our report, that people should be aware of secondary findings, you know, which is a better term than "incidental."

Finally, I will offer a recent example from abroad, since one of the characteristics of this Commission, of which we have benefitted and of which we are proud, is that we have reached out internationally. The report we did on Guatemala, we put together an international panel. And in all of our reports we have asked for the incredible expertise that you can find now internationally in bioethics. And that has been welcomed by our colleagues, you know, internationally, but it has also -- I should say "and" -- it has also really strengthened our own deliberations.

So, here is a recent example from abroad. Starting in the mid-2010s, amid a growing body of research on mitochondrial disorders and therapies, public interest in mitochondrial donation became a topic of great public interest in the United Kingdom.

In February 2011, the UK Secretary of Health requested that the Human Fertilization and Embryology Authority, HFEA -- so I don't have to say the whole thing over and over again -- more thoroughly explore -- and I quote -- "expert views on the effectiveness and safety of mitochondrial transfer." Upon completing a comprehensive scientific analysis, HFEA acknowledged the need for an analysis of the ethical issues.

In September 2011, the Nuffield Council on Bioethics, of which we are -- we feel particularly close and we admire greatly, established a working group to oversee the

project. The Nuffield Council subsequently published a report in which, among other things, it encouraged broader public deliberation and strict parliamentary oversight.

HFEA then partnered with Sciencewise, the UK's national center, for public dialogue and policy-making involving science and technology issues, which we will hear more about later today. So Sciencewise was partnered with HFEA to create a public process that included the use of deliberative workshops, public representative surveys and questionnaires, open consultation meetings, and patient focus group: a really thorough deliberation. And the findings found broad public support for the use of mitochondrial donation techniques.

Following these processes of public deliberation, the House of Commons and the House of Lords approved regulations on mitochondrial donation in 2015. The United Kingdom is the first country in the world to approve a regulated system for the use of mitochondrial donation. That is something that we, as a deliberative commission, really admire and applaud. It was really a model of putting public deliberation into practice.

So, with these examples of effective deliberation as our backdrop -- and I could give many more that are specific to our Commission and to the practice of bioethics -- I want to turn to updates from our two member working groups, one which is focused on deliberation, and the other is focused on bioethics education. And these working groups have undertaken preparatory work for the Bioethics Commission, reviewing our past work, and identifying gaps and areas for improvement in these fields.

So, we are going to start off with an update from the deliberation working group. And every member of our Commission is in one or the other of these groups. And I am going to ask Nelson to report out on that.

DR. MICHAEL: Thanks, Amy. So I am going to summarize a discussion that happened by teleconference on the 9th of July of this year for the deliberation working group. This group consists of myself, Anita Allen, Dan Sulmasy, Christine Grady, Amy Gutmann, and Jim Wagner. We sought to review the Commission's past work on deliberation, discuss our thoughts on the topic, formulate potential recommendations to propose to the full Commission, and to identify any remaining gaps that require further research or expert presentations.

So, first, our discussion. We discussed what we have already learned about the deliberative process from experts, one of whom chairs our Commission, and from our own experience. We report that -- we agreed that, in our report, it will be our responsibility to, first, describe deliberation, the principles that underlie it, and what circumstances it can be valuable.

For example, we should explain that respect for differing opinions is one of the tenets of deliberation, and sets it apart from most contemporary political discussions. We also agreed that in the report we should explain, using vivid examples, how the Commission itself has engaged in and encouraged deliberation.

For example, we can detail some of the problems we tackled that presented competing values, describe how we worked through these competing values to reach consensus, and -- as in our report on whole genome sequencing, reconciling the benefits of widespread data-sharing of genetic data, with the risks of such practices.

However, we agreed that we should also acknowledge the limitations and challenges that our body faced in deliberating.

Finally, the group felt strongly that the report should provide a reasoned argument in favor of deliberation, as compared to other methods of policy-making, and should also emphasize the value of deliberation to enhance bioethics education.

So, in terms of potential recommendations, we came up with two potential ideas that we thought were ripe for recommendations. And I should just emphasize that we are not post-decisional on that at this point.

First, we agree that the Commission should firmly state that the deliberative processes should be incorporated into policy decisions, especially difficult and polarizing ones. However, we emphasize that we must be as specific as possible in formulating this recommendation, perhaps by pointing out specific methods for incorporating deliberation, such as increasing face-to-face interactions, leveraging social media for deliberation, rather than polarization and name-calling, and improving fact-check mechanisms, so that participants do not waste time debating established facts.

Second, we agreed that we should recommend the collection of evidence about whether, how, and in which context deliberation can work. These studies should be comparative, assessing existing methods for reaching policy solutions against deliberation. The results of these studies will help and strengthen the argument that deliberation is a valuable tool.

So, in terms of points for continued discussion, one aspect for which we need more guidance is on the appropriate research to recommend for studying deliberation. Metrics to use for determining its value would be quite critical.

For example, deliberative polling is a more involved and, potentially, more costly version of deliberation. To advise about situations in which strategies like deliberative polling add the most value, we need to study it. But how should we go about doing that? So we welcome discussion with the rest of the Commission about this topic and thoughts on our proposed recommendation, and brainstorming next steps.

DR. GUTMANN: Great. I am going to ask -- what do you think? Should we take discussion of this, or should we go on to the education and then -- let's go on to the -- let me just make an executive decision. Let's ask Nita, who is on the phone, to report out for the education working group, and then Steve, and then we will open it up before we go on to our panels.

So, Nita, you are on.

DR. FARAHAANY: Thank you, Amy.

DR. GUTMANN: And we can hear you loud and clear, so that is great.

DR. FARAHAANY: Terrific, I am glad to hear that.

So, I am going to report about the considerations of the bioethics education working group, or ethics education working group, where we had a teleconference on July 9th and met together with other Commission members: Barbara Atkinson, Steve Hauser, Raju Kucherlapati, and myself, as well as through -- with the guidance of our Bioethics Commission staff. And we took up the question of how educational activities of all sorts can really encourage serious engagement for the process of democratic deliberation in society with our individual and our collective values.

And we were really focusing on how the contributions of ethics education could help produce informed citizens, thoughtful professionals, empowered health

consumers, and at what stage of the -- they might start that kind of education and training.

And particularly given that what we are talking about is a very multi-disciplinary field -- so science, medicine, bioethics, biomedical research -- ethics education really needs to be available across a wide variety of disciplines, that it shouldn't just be something that pairs with science education or medicine, but across the board.

We looked at a number of issues, and some points that we think would help to have ongoing commitment to this topic. And, in particular, we looked at several targeted recommendations, and I am going to start with the first one, and then Steve Hauser is going to take the task of talking through some of the other things we focused on.

So, the first one that we focused on, in an area that I think is really important, is on the specific levels of education. And we had a very rich conversation about how it is really too late to introduce ethics education at the graduate level or as part of the professional training experience. The best thing we could do is to push that kind of education much earlier into the educational setting. So, as early and even earlier than high school, ethics education could help to prepare all members of society to really become broad thinkers, to engage with complex problems, to have the tools for being able to think through the issues that we are faced, as a society, whether in our personal lives or in our professional lives.

After high school education, we think that undergraduate education could really build on this early foundation. So, in particular, we think this shouldn't be something that is just paired, again, with science education, but something that really

should be a core part, even a mandated part, a curricular requirement, as a first step toward providing greater ethics literacy and ethics competency. And Steve will get to some of the specifics that we think are essential, that could be built into that kind of early education model.

And then, finally, graduate, professional, and continuing education should be expanded. So ethics and professionalism, and, in this instance, tailored more specifically to the challenges that professionals or graduate students are likely to encounter in their career. So, basically, starting with a much broader kind of focus, and then narrowing to the type of competency that would be relevant to the level of education, over time.

So I will now hand things over to Steve Hauser to describe the breadth of the process.

DR. GUTMANN: Thank you, Nita.

Steve?

DR. HAUSER: Thanks, Nita. Our second major area of focus was considering how we educate the next generation of bioethicists. And possible recommendations include, first, to identify core competencies, not with an aim of providing an exhaustive list, but, rather, just to highlight central ethical skills, such as risk literacy, critical reasoning, and -- et cetera.

Second, we think that it will be useful to describe the strengths of experiential approaches that link ethical reasoning to real-world applications. And case studies are particularly useful in this regard.

The third area that we considered for potential recommendations in our report concerned how to evaluate the success of ethics education. Methods of

assessment might achieve several aims, including: first, identifying real education successes in classroom teaching methods; second, by documenting achievement of course outcomes; and, third, by examining the consistency in a discipline or profession by surveying the curricular requirements of programs or universities.

This afternoon a panel of speakers will help flesh these issues out, and address the topic of fostering and measuring success during session four today.

Finally, our working group felt strongly that the coming report should actively illustrate ethics education and its practical value. For example, we might employ a compelling contemporary example to demonstrate the value and importance of improving ethics education.

So that, I think, concludes our report, Nita. I might ask Raju, Barbara, or Amy if things have been left out that they would like to add.

DR. KUCHERLAPATI: That is actually quite good, but I do want to make a comment, if that -- okay?

So I think when we think about presenting this report, we should be thinking about, I think, two aspects. One is what is the -- what we think would be an ideal solution to the problem, and what are the kinds of recommendations that we make. But it is also important for us to understand the practical implications of implementing any of the recommendations that we make, and the recommendations should not be such that -- impossible for many at the organizations to implement.

So, we should provide specific examples as to how we could implement it. And the implementation of many of the recommendations may be gradual. It may not happen all tomorrow. But if we could provide a framework in which, you know, the

people can think about that nationally, and how they could implement that, and at what stage of education, I think that would be beneficial.

DR. GUTMANN: Barbara?

(No response.)

DR. GUTMANN: So, one of the reasons it is important to give examples as precisely -- what Raju says -- if we give examples of what we see as excellent deliberation in action, and excellent ethics education in action, that shows, rather than just tells, that it is possible to do this.

Now, we want to recommend more. So what Raju is saying, I think, is very important. It should be -- we should -- we will take into account what we think is actually practically possible. And so I think that is a really good point.

Christine, do you have something you would like to add?

DR. GRADY: Oh --

DR. GUTMANN: I also -- let me just say I invite any questions right now. We are going to -- our next session begins at 9:45. We may even begin it early. But if there are any questions now, right now for the working groups, just bring them up to me.

And I see -- Michelle is sitting right there, and she has cards. So we want to make this easy. So there are cards all around. It is just easier if I read them, for the public record, from up here.

So, Christine?

DR. GRADY: Just glad to see that both groups realized that we need more information or evidence about methods and outcomes, both in terms of deliberation and education. And, as we are expanding, or recommending expanding

education to all levels, you know, I find it hard to think that anyone would disagree that that is a good idea. But how to do it is the really tricky thing.

And so, implementation is really important, but also knowing what methods work is really important. And we are going to have to say something about how do we get -- there are some -- there is some evidence out there, and that is a very important thing. But there could be more.

DR. GUTMANN: Yeah. Let me just address that with both agreeing, but also an important detail, or caveat.

So we should draw upon the literature that exists, based on some really good studies of what -- I will just focus on deliberation right now. There is deliberation in education. We got -- Diana Hess gave some very good testimony to this Commission based on, really, excellent research that is done in the best way of social science research, of what works. And it had qualifications of when deliberation is difficult, and how you overcome those difficulties. We should draw on that.

We also should -- and here is my caveat -- we now know that the alternative to deliberation -- and our society tends to be not taking account of positions that you happen not to like, demeaning your opponents, denying facts when they are well-established scientific facts.

We have to be -- so the caveat is we have to be careful that we recommend what we know, on the face of it, is better than that, given that there isn't research -- the reason that is happening in our society isn't because there is a body of research saying it is the best way to do it. It is the easiest thing to do, given the cultural and political climate we live in.

So, we ought not to hesitate in strongly recommending more deliberation until there is more research on the refinements of it, given that the alternative is the status quo, which has nothing scientifically or ethically to be said for it, other than it is the status quo.

So I think it is really important that we strongly recommend what we know, on the basis of the best evidence and the best ethics, to be better than the status quo, and also recommend that more research be done to refine the methods and to know, among all the ways you can deliberate, what are the best ways. Is that a friendly --

DR. GRADY: Absolutely, yes.

DR. GUTMANN: A friendly amendment, or --

DR. GRADY: I want to say I agree with both. I think capitalizing on the best evidence that exists already -- and I agree with you, that Diana Hess's examples were wonderful, and the research that she has done, for example, is wonderful.

But there is nothing worse than telling people to do deliberation or education and have them do it wrong. And then you get, you know, people who think ethics is not a good thing, and that -- so that is -- so I think we need to capitalize on the evidence that does exist, and also recognize that there is room for more evidence.

DR. GUTMANN: Great. So now I have some questions, which --

DR. FARAHANY: Sorry, when you have a moment I would like to add -- after your question.

DR. GUTMANN: Sure, sure. So let me take some questions. We really -- John Gastil, Penn State. John, welcome.

"If the Commission had to prioritize either influence on policy-makers" -- I love these kinds of questions, because they are very -- "If the Commission had to prioritize either influence on policy-makers or embracing the broader public's ethical deliberation, which would be the more important objective for its work and its report?" Or enhancing, excuse me. I -- "Either influence on policy-making" -- excuse me -- "or enhancing the broader public's ethical deliberation," which would be the more important objective for its work and its report?

PARTICIPANT: Both.

(Laughter.)

DR. GUTMANN: Well, no, no. Let me -- I am going to bite the -- I will bite the bullet, at the risk of my Commission members, which I would be happy if they -- I think -- I actually think enhancing the public's ethical deliberation is -- does more.

Firstly -- I am taking Raju -- firstly, I want to take into account what is possible. I think direct influence on elected policy-makers in our environment is very, very difficult. I think indirect influence by enhancing the public -- you know, the public, who is attentive public, it is not -- we are not under any, you know, illusion that we get as many people paying attention to us as some unnamed candidates in the primaries do. However, if we can enhance public deliberation, we have an influence on policy-makers.

Now, the reason we all will say that we don't have to choose is that each one of the examples we gave earlier enhance public deliberation, no doubt, and it also influences policy-makers, who were attentive to being influenced. And I think we can do both. But if I had to choose, I would choose the public.

Raju?

DR. KUCHERLAPATI: I think I could give a specific example that actually illustrates the point that you are trying to make.

DR. GUTMANN: Right, right.

DR. KUCHERLAPATI: I think that certainly one of the areas that I am involved in is teaching graduate students ethics. And many institutions, many years ago, recognized the importance of teaching students the deliberative process, and the core principles of research. And at that time the policy-makers were not really aware of the necessity for doing that, but they later took the lead from these several academic institutions, and now, for example, they -- the National Institute of Health makes it mandatory that all of the institutions that receive support from the NIH in training grants should educate the students in ethical conduct and research.

So, those are the two steps that happen. The broader goal is to be able to educate all of those people, scientists and emerging scientists. And, as a result of that, we are able to influence the policy-makers, and the policy-makers came forward. And now it is, essentially, as a result of that, it is mandatory for everybody.

DR. GUTMANN: Yes, that is terrific. I am going to go on to one other question, because I will stay on time. We will not go past 9:45. These things will come up again.

So, Karen Meagher. Karen, can you pronounce your last name for me?

DR. Meagher: It is Meagher.

DR. GUTMANN: I got it, Meagher. Great. Karen -- raise your hand here -- is a staff member at the Bioethics Commission, senior policy and research analyst in philosophy. And I think this question is very timely and ought -- is one we

need to think about, specifically. And again, this is in the spirit of how to make sure our recommendations maximize their capacity to be put into practice.

"So, in a search for accountability for student performance -- this is about education -- recent education policies have emphasized testing. This has placed pressure on students and public scrutiny on teachers that has often overshadowed their important public mission, their important public service, the importance of, for example, teaching good citizenship and teaching ethics. How does ethics education provide an alternative to these trends?"

Can we give an answer to that? Anyone? We should think about how we can make it clear. I would say we really should think about how we can make it clear that -- I will give an example -- teaching history so that students learn history is not only compatible with, but points you towards engaging students in ethical deliberations and role-playing about how the Civil -- what happened in the Civil War, for example, becomes much more vivid if students are engaged in arguments about slavery.

And so, I think we need to make clear in our recommendations of secondary school ethics education how this is actually a way of teaching students important subject matters like history better. And I saw I provoked -- Nelson and then Dan.

DR. MICHAEL: I want to say quickly I think it is more important for people to understand, you know, what the dynamics were of something like the Civil War than being able to spout out the exact dates that the Battle of Gettysburg happened, and how many people were on each side. I mean -- and but the latter is easily testable and quantifiable, and the former is something that requires maybe more subjective input, but I think it is more valuable.

DR. SULMASY: Yes, this leads to a question I had for the subgroup on education to begin with. A related question is that, you know, we can -- we are sort of emphasizing measuring the outcomes of ethics education, which -- and, from what I heard from the group, a lot of what you talked about was about competencies and measurable competencies. And I think we all know that being able to pass a test in ethics doesn't necessarily make one a good scientist or a good physician, for instance.

And so, I wondered how much time the working group gave to talking about virtue, and education for virtue, as part of what we do in bioethics, because I think, while it is less easy to characterize, more difficult to teach, more difficult to measure, it may, in the end, be a more important part of our education. So I don't know if you spoke about it. And, if not, I think I recommend we make it part of the report. So --

DR. FARAHAANY: Can I --

DR. GUTMANN: Yes, and -- please, Nita.

DR. FARAHAANY: So I think that is a great question, Dan. And one of the things that we focused on -- yes, we could talk about the role of virtue, and about being part of the educational process. One of the things that we think is really important for us to provide some leadership and guidance on is the question of what counts as core competencies, for lack of a better word. How do we think about the things that go into ethics education?

Because to Christine and Amy's point earlier, it is really important that we do this well. And part of doing this well is identifying what are the set of things that we think go into doing it well? What are the competencies? What are the set of discussions that are necessary to do so? And I echo your sentiment, Dan, that I think

virtue, education, and figuring out how to do that well and how to appropriate that is really essential.

And I will add a second point, while I am speaking, which is part of doing this well is really making sure that this doesn't just become a check box, that it is truly applied learning, that it is a way to enable people to both recognize its importance, but feel engaged in it, rather than feeling like it is just a necessary part of the curriculum.

And I think we heard some really great examples of that at our last meeting. One that stood out for me was the ethics lab at Georgetown, and the way that they are really coming up with an integrated learning experience and applied learning experience that gives students the ability to both build the competencies and apply it to real-world problems. And I think being creative and thinking about how to do ethics education well, including through experiential application, will be an important and valuable part of our report.

DR. GUTMANN: Terrific. I would just say -- and this is picking up on a question that I won't read, but will answer -- you will understand the question.

We -- in ethics education there is good evidence that the development of autonomy, the cultivation of character, ethics education, and building skills for learning throughout life at the -- especially at the early stages of the high school level, they all come together in good ethics education, that if you engage students in real -- I will use history again -- real historical examples, where you have to know the facts, there are actors.

You talk about the actual people, citizens and public officials who had to make decisions at the time. You ask students to role play and take positions that they may disagree with, and you get them really engaged, and feeling what -- you know,

what was at stake. You teach the elements of character, and you teach elements of decision-making, and you teach skills of reasoning and argumentation. So we should, in our report, with -- using bioethics as some example -- but we can use other examples earlier on -- make that clear.